

BRIDGE CONDITIONS

However people or goods travel (automobile, truck, train, bicycle, foot, snowmobile, motorcycle, or other means), bridges provide river crossings, railroad crossings, or other road crossings. Within the State of New Hampshire there are 3,637 bridges (structures 10 feet or greater in length carrying a highway), of which, 2,062 are State maintained structures, and 1,575 are municipally maintained.

Bridges are typically designed for an expected service life of at least 70 years. With advancements in new technology, better construction materials, and updated design standards the projected service life of newer bridges may stretch to 100 or more years. These advancements also result in less maintenance over the life of the bridge.

All state and municipally owned bridges in New Hampshire are inspected at regular intervals based on the bridge's ownership and its condition. All bridges deemed to be in acceptable condition are inspected every two years. Bridges that are questionable are inspected more frequently; for State-owned bridges, such structures are inspected twice a year, and, for municipally-owned bridge, such structures are inspected by the State once a year. Based on this inspection information and other data collected on a bridge, determinations can be made as to the proper course of action for that bridge. If the bridge's condition is not good, it may need rehabilitation or replacement.

Bridge condition is a concern to the Department, municipalities, and the public. When conditions reach the status of structurally deficient, functionally obsolete, or Red List, consideration must be given to rehabilitation or replacement. Definitions of each of these conditions are as follows:

Structurally Deficient – A bridge which, due to its deteriorated condition, no longer meets current standards for load carrying capacity and structural integrity.

Functionally Obsolete – A bridge which, due to the changing need of the transportation system, no longer meets current standards for deck geometry, load carrying capacity, vertical or horizontal clearances, or bridge approach alignment.

Red List – Bridges that require more frequent inspections due to known deficiencies, poor structural conditions, weight restrictions, or the type of construction (such as a replacement bridge installed on a temporary basis).

Although the public may perceive Red List bridges to be those in the worst condition, this is not always true. The Red List identifies bridges requiring additional inspection efforts, as indicated above. Some of these bridges are historic, such as covered bridges, and will always remain on the Red List. These specific types of bridge structures have lower design specifications and load carrying capacities as compared to newer bridges, and cannot likely be modified or rehabilitated to

current design or rating capacities. In total, there are 52 of these types of structures that will probably always be on the Red List.

The following tables and accompanying maps depict the condition of all State-owned, Municipally-owned, and other highway bridges as of April 2005.

Bridge Condition	State-Owned Bridges	Non State-Owned Bridges
Red List Bridges (Non-Historic)	133	323
Red List Bridges (Historic)	12	40
Structurally Deficient or Functionally Obsolete	167	226
Good Condition	1,750	986
Totals:	2,062	1,575

Expected Future Conditions

The future condition of the State's bridges depends on a number of factors. The availability of funding to repair and replace deficient or obsolete bridges remains a concern. In addition, the present condition, the amount of traffic carried, and the types of loading placed on each bridge are also important considerations.

Based on the results of bridge replacement and rehabilitation efforts over the past ten years, the Department has successfully reduced the total number of State-owned Red List bridges, however, the number of bridges being added to the Red List each year offsets most of these gains. Thus, although in past years an average of 10 bridges per year have been removed from the Red List, the rate of bridge deterioration has limited the net decrease of State-owned bridges from the Red List to only 3 or 4 per year.

The effort towards reducing the number of municipally-owned bridges on the Red List shows greater progress, however, it is recognized that there are more than twice as many municipally-owned Red List bridges than state owned Red List bridges. Regardless, the efforts of the municipalities, with financial assistance through the State Aid Bridge Plan, has resulted in a net decrease of 16 bridges per year from the Red List of non-State-owned bridges.

Assuming the current overall rate of removal of bridges from the State Red List, it will take approximately 50 years to minimize the number of State-owned Red List bridges. On the municipal side, projecting the current rate of removal into the future, the time frame required to minimize municipal Red List bridges is approximately 25 years. The delay is manageable, but it does increase the State's and the municipalities' vulnerability to a major incident, incrementally increasing costs in terms of additional maintenance and adds potential inconvenience to the public due to bridge restrictions and periodic maintenance activities. The NHDOT is committed to maintaining the State's bridges for the traveling public's safety.

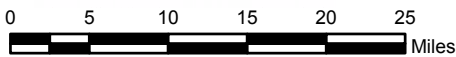
BRIDGE CONDITION

State Owned Bridges

(Number of Bridges = 2062)

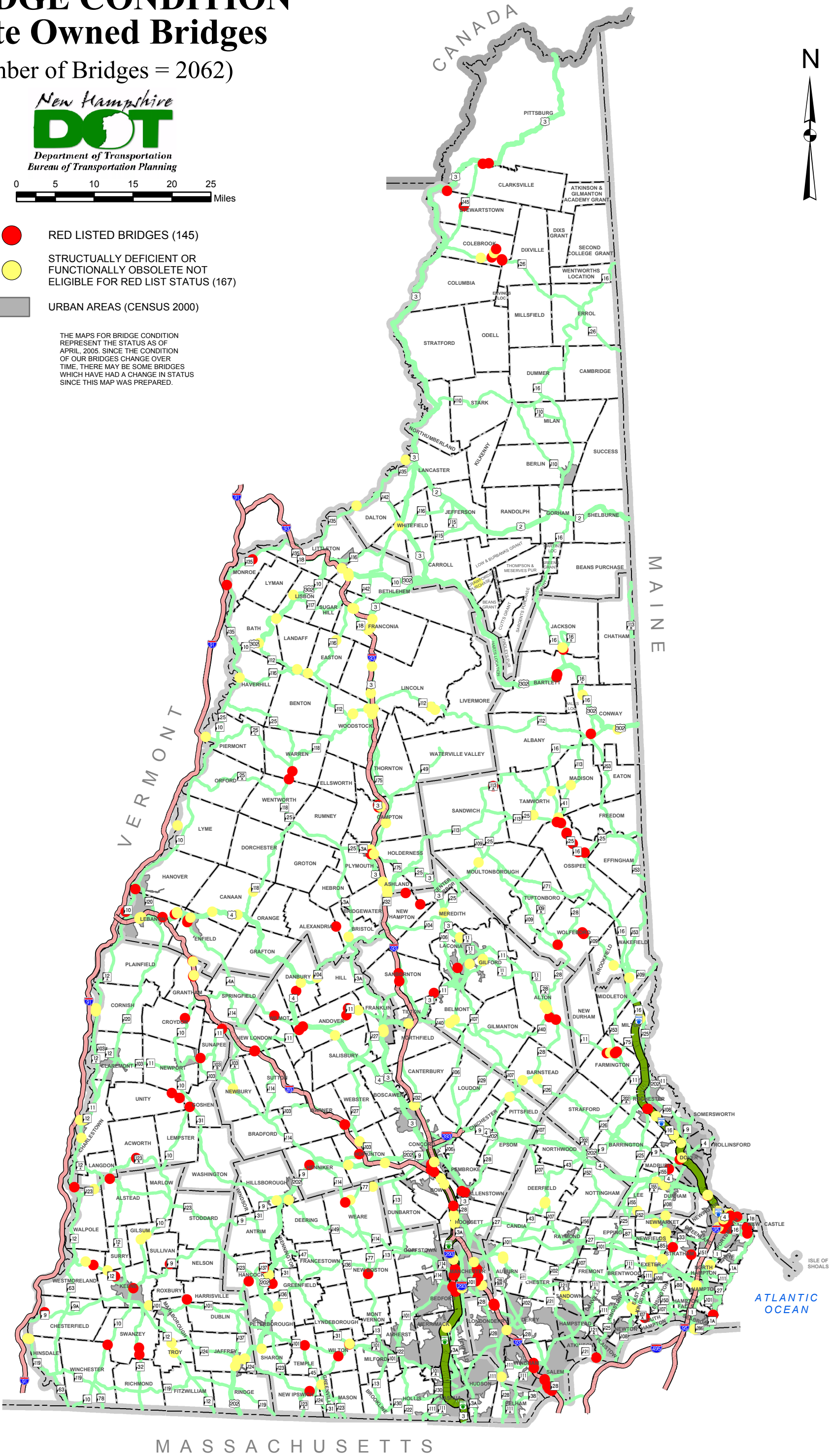


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- RED LISTED BRIDGES (145)
- STRUCTURALLY DEFICIENT OR FUNCTIONALLY OBSOLETE NOT ELIGIBLE FOR RED LIST STATUS (167)
- URBAN AREAS (CENSUS 2000)

THE MAPS FOR BRIDGE CONDITION REPRESENT THE STATUS AS OF APRIL, 2005. SINCE THE CONDITION OF OUR BRIDGES CHANGE OVER TIME, THERE MAY BE SOME BRIDGES WHICH HAVE HAD A CHANGE IN STATUS SINCE THIS MAP WAS PREPARED.



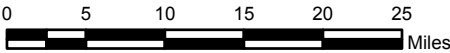
BRIDGE CONDITION

Municipally Owned Bridges

(Number of Bridges = 1575)



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- RED LISTED BRIDGES (363)
- STRUCTUALLY DEFICIENT OR FUNCTIONALLY OBSOLETE NOT ELIGIBLE FOR RED LIST STATUS (226)
- URBAN AREAS (CENSUS 2000)

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